

Primary 5 Math	
Ratio	
Standard Worksheet 3a	
Name :	Date :

Show your working in the space provided.

- The number of red beans to the number of green beans has a ratio of 4:5, On the other hand, the number of green beans to the number of black beans has a ratio is 8:3. If there are 34 red beans more than black beans, how many black beans are there?

Red:Green:Black

$$\begin{array}{l}
 4 \quad : \quad 5 \\
 \quad \quad 8 \quad : \quad 3 \\
 \hline
 32 \quad : \quad 40 \quad : \quad 15 \\
 \hline
 17 \text{units} = 34 \\
 1 \text{unit} = 2 \\
 \hline
 \text{No. of black beans} = 15 \times 2 = 30
 \end{array}$$

- In a box, there are lollipops, chocolate and sweets. The ratio of the number of sweets to the number of lollipops is 4:3. The ratio of the number of chocolate to the number of lollipops is 1:6. What is the ratio of the number of sweets to the total number of pieces of candies in the box?

Lollipops:Chocolate:Sweets

$$\begin{array}{l}
 3 \quad \quad \quad \quad : \quad 4 \\
 \hline
 6 \quad : \quad 1 \\
 \hline
 6 \quad : \quad 1 \quad : \quad 8 \\
 \hline
 \text{Sweets:Candies} = 8:14 = 4:7
 \end{array}$$

- The number of durians on tree A to the number of durians on tree B is 9:5. Tree A has $\frac{18}{23}$ as many durians as tree C. If Tree B has 39 less durians than Tree C. Calculate the number of durians on tree A?

$$\begin{array}{l}
 \text{A : B : C} \\
 \hline
 9 : 5 \\
 \hline
 18 : \quad : 23 \\
 \hline
 18 : 10 : 23 \\
 \hline
 13 \text{units} = 39 \\
 1 \text{unit} = 3 \\
 \hline
 \text{No. of durians on tree A} = 18 \times 3 = 54
 \end{array}$$

4. The mass of a lion to that of a tiger is 8:7. The tiger is $3\frac{1}{2}$ times as heavy as a dog. If the tiger is 13kg lighter than the lion, calculate the total mass of the dog and the tiger.

Lion:Tiger:Dog

$$\begin{array}{r} 8 \quad : 7 \\ \quad \quad \underline{7} \quad : 2 \\ 8 \quad : 7 \quad : 2 \end{array}$$

1unit=13

Total mass of dog and tiger = 9x13 = 117kg

5. In a school, every 8 out of 21 students go to school by bus. The rest go to school by car or van. The number of students who take buses to the number of students who take van is 3:1. How many pupils are in the school if the number of students who take buses is 400 more than the students who go to school by van?

Bus: (Car+Van) = 8:13 = 24:39

Bus: Van = 3:1 = 24:8

Bus: Van: Car = 24:8:31

16units=400

1unit=25

Total no. of students = 63x25 = 1575

6. The number of Sam's marbles to the number of Ranga's marbles was 1:3. After Sam bought another 20 marbles and Ranga received 8 more marbles from his Kit, the ratio of Sam's marbles to Raj's marble became 1:1. How many marbles did they have at first?

1unit+20 = 3units+8

2units = 12

1unit = 6

Total no. of marbles at first = 4x6 = 24

7. The ratio of John's money to Meiling's money was 3:5. After John spent \$600 on an oven, the ratio became 1:3. Calculate the amount of money they have at first.

3:5 = 9:15

1:3 = 5:15

4units=\$600

1unit=\$150

Amt. of money they had at first = 24x\$150 = \$3600

8. Joseph had 32 guppies and 23 swordtails. After 9 swordtails and some guppies die, the ratio of the number of swordtails to the number of guppies was 2:3. Calculate the total number of fishes that died.

$$\underline{2:3 = 14:21}$$

$$\underline{32-21 = 11}$$

$$\underline{\text{Total no. of fishes that died} = 9+11 = 20}$$

9. A sum of money is shared among Alfred, Ben and Chris in the ratio 1:2:3. Chris spent $\frac{7}{8}$ of his money and had \$32 left. Calculate the sum of money they shared.

$$\underline{1\text{unit}=\$32}$$

$$\underline{8\text{units}=\$256}$$

$$\underline{3\text{units}=\$256}$$

$$\underline{\text{Sum of money} = 2 \times \$256 = \$512}$$

10. Jean and Claryn shared some candies in the ratio of 3:7. Claryn gave Jean 16 candies and they end up with same number of sweets. What is the number of candies that they shared?

$$\underline{2\text{units}=16}$$

$$\underline{1\text{unit}=8}$$

$$\underline{\text{Total no. of candies shared} = 10 \times 8 = 80}$$